

1. A method for improving voice recognition accuracy when a user submits a query by voice to search a domain of items, the method comprising:

prompting a user to submit a set of characters of the voice query, and receiving the set of characters from the user;

identifying a subset of items in the domain that correspond to the set of characters;

generating a dynamic grammar based at least in part on the subset of items;

prompting the user to submit the voice query, and receiving the voice query from the user; and

interpreting the voice query using the dynamic grammar.

- 2. The method as in Claim 1, wherein prompting a user to submit a set of characters comprises prompting the user to submit the first N characters of a query term, where N is greater than 1.
- 3. The method as defined in Claim 1, wherein prompting a user to submit a set of characters comprises prompting the user to submit a set of characters of an author's name.
- 4. The method as defined in Claim 3, wherein generating a dynamic grammar comprises incorporating into the grammar names of authors of the items within the subset of items.
- 5. The method as defined in Claim 4, wherein the dynamic grammar consists essentially of the names of the authors of the items within the subset of items.
- 6. The method as defined in Claim 4, further comprising incorporating into the dynamic grammar non-author terms extracted from the subset of items.
- 7. The method as defined in Claim 1, wherein prompting a user to submit a set of characters comprises prompting the user to select the characters on a telephone keypad.
- 8. The method as defined in Claim 7, wherein prompting a user to submit a set of characters further comprises prompting the user to utter the characters, and

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wherein receiving the set of characters comprises using the keypad entries of the characters to interpret utterances by the user of the characters.

- 9. The method as defined in Claim 1, wherein generating a dynamic grammar comprises extracting text from/the subset of items.
- 10. The method as defined in Claim 9, wherein extracting text from the subset of items comprises extracting the text from a database field corresponding to a search context of the query.
- 11. The method as defined in Claim 1, further comprising storing the dynamic grammar within a cache for subsequent use.
- 12. The method as defined in Claim 1, wherein prompting a user to submit a set of characters comprises prompting the user to enter a fixed number of characters, wherein the fixed number is selected based on a target grammar size.
- 13. The method as defined in Claim 1, wherein receiving the set of characters comprises determining in real time whether a number of entered characters is sufficient to produce a grammar that falls below a threshold size.
  - 14. The method as defined in Claim 1, further comprising:

    executing a search using the voice query as interpreted using the dynamic grammar to identify a set of search result items;

providing the user an option to add an additional query term to the voice query to refine the search;

generating a second dynamic grammar at least in part from the set of search result items; and

receiving a voice entry of the additional query term from the user, and interpreting the voice entry using the second dynamic grammar.

A method for improving voice recognition accuracy when a user submits a query by voice to search a domain of items, the method comprising:

receiving a set of characters entered by a user, the set of characters representing a portion of a query;

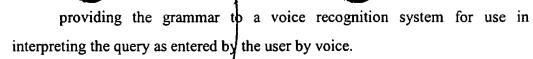
selecting a grammar which is derived from text extracted from a subset of items that correspond to the set of characters entered by the user; and

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16. The method as defined in Claim 15, wherein selecting a grammar comprises:

executing an initial search to identify the subset of items that correspond to the set of characters; and

extracting text from the subset of items for incorporation into the grammar.

- 17. The method as defined in Claim 16, wherein extracting text from the subset of items comprises extracting the text from a database field corresponding to a search context of the query.
- 18. The method as defined in Claim 17, wherein the search context comprises an author search, and the database field is an author field.
- 19. The method as defined in Claim 15, wherein selecting a grammar comprises reading a previously generated grammar from memory based on the set of characters entered by the user.
- 20. The method as in Claim 15, wherein receiving a set of characters comprises receiving the first N characters of a query term, where N is greater than 1.
- 21. The method as in Claim 15, wherein receiving a set of characters comprises receiving characters entered at least in-part using a telephone keypad.
- 22. The method as in Claim 15, wherein receiving a set of characters comprises using a telephone keypad entry of a character by the user to interpret an utterance of the character by the user.
- 23. The method as defined in Claim 15, wherein receiving a set of characters comprises determining in real time whether a number of entered characters is sufficient to produce a grammar that falls below a threshold size.
  - 24. A system for conducting searches by voice, comprising: a database of items;

a query server which searches the database of items according to voice queries from users, the query server coupled to a voice recognition system which interprets the voice queries according to grammars;

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a first code module which causes a user to be prompted to enter a set of characters of a query; and

a second code module which causes the user to be prompted to utter the query;

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wherein the query server is programmed to use the set of characters to select a grammar for use by the voice recognition system to interpret the query as uttered by the user.

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- 25. The system as defined in Claim 24, wherein the first and second code modules comprise voiceXML coding.
- 26. The system as defined in Claim 24, wherein the query server selects the grammar by at least:

executing a preliminary search to identify a subset of items that match the set of characters; and

extracting text from the subset of items to incorporate into grammar.

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- 27. The system as defined in Claim 26, wherein the query server is programmed to extract author names from the subset of items to generate a grammar for performing a voice-based author search.
- 28. The system as defined in Claim 24, wherein the query server is programmed to select the grammar from memory using the set of characters.

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- 29. The system as defined in Claim 24, wherein the set of characters is a set of the first N letters of a query term, where N is greater than 1.
- 30. The system as defined in Claim 29, wherein the query term is a name of an author.
- 31. The system as defined in Claim 29, wherein N is selected based on a target grammar size.
  - 32. The system as defined in Claim 24, wherein the first code module prompts the user to both utter, and enter on a telephone keypad, each alphabetic character of the set.
- A method of assisting users in locating items in a database using voice queries, the method comprising:



receiving a voice query from a user, and identifying a set of search result items that are responsive to the voice query;

providing the user an option to refine the query by adding an additional query term;

generating a grammar by at least extracting text from the set of search result items; and

using the grammar to interpret an utterance by the user of an additional query term.

- The method as defined in Claim 33, wherein generating a grammar 34. comprises extracting text from a database field corresponding to a search context of the query.
- 35. The method as defined in Claim 33, wherein using the grammar to interpret an utterance comprises using the grammar to interpret utterances of multiple additional query terms by the user.
- The method as defined in Claim 33, wherein the grammar is generated in 36. response to selection/by the user of the option to add an additional query term.
- 37. The method as defined in Claim 33, wherein the option to refine the query is presented fo the user only if the number of items in the set exceeds a predefined threshold.

The method as defined in Claim 33, further comprising storing the 38. grammar in a cache for use with subsequent query submissions.

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